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FINANCING PRIVATE ENERGY PROJECTS IN THE THIRD WORLD

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As developing nations struggle to modernize and industrialize, their demand for infrastructure development has grown at a staggering rate.[1] To modernize, these nations must build new roads, plumbing and sewage systems, and provide services that developed nations often take for granted.[2] In particular, developing nations have experienced drastic increases in demand for energy production.[3] This demand for new power generation has

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[1] *See* Patrick D. Harder, *Infrastructure Privatization in South Asia*, 15 APR CONSTRUCTION LAW. 34, 34 (1995) ("The explosive growth of the economies of the countries making up South Asia, with the corresponding mass migration of the rural population into the cities in search of employment, has resulted in an overloading of the often antiquated infrastructure systems found throughout South Asia.").

[2] *See id.* (describing third-world infrastructure needs as including highways, railways, safe water supplies, fiber-optic cabling, telecommunications systems, deep-sea ports, airports, and electric power generation).

[3] *See id.* ("Particularly acute is the growing demand for electricity in the region. Brownouts and other electrical failures are commonplace in many of the fast-growing cities of developing South Asia .... [T]he need for electricity generation plants has reached crisis levels in some areas."); ENRON GLOBAL POWER AND PIPELINES LLC, 1994 ANNUAL REPORT (1995) (stating that to meet increased power demand in Philippines, total installed capacity must increase from 7,900 megawatts in 1993 to 11,200 megawatts in 1988 and 25,000 megawatts in 2005, and that in India power needs exceed availability by approximately 22 percent); *World Bank Backs Private Power Scheme*, POWER ASIA, Jan. 22, 1996, at 13 (asserting that Bangladesh needs to increase power generation 1,200 megawatts by year 2000).

quickly outpaced the ability of Third World nations to fund such development.[4] For this reason, governments of developing nations have begun to allow private foreign investors to finance, operate, and own energy infrastructure projects.[5] Foreign investors, in turn, have rushed to meet this demand.[6]

Private power generation projects are arising throughout the developing world.[7] For example, Enron Development Corpora-

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[4] *See* Robert Thorton Smith, *Submission and Evaluation of Proposals for Private Power Generation Projects in Developing Countries, in* PROJECT FINANCING FROM DOMESTIC TO INTERNATIONAL: BUILDING INFRASTRUCTURE PROJECTS IN DEVELOPING MARKETS 1995 (PLI Commercial Law & Practice Course Handbook Series No. A4-4460, 1995) ("The private sector can be an important source of financing for power, a factor that is especially relevant for the financially pressed public sectors of many developing countries.").

Authorities project that Asian countries will require $3 trillion for infrastructure development over the next ten to fifteen years. Harder, *supra* note 1, at 34. Despite booming economies in South Asia, these countries remain incapable of financing development projects. *Id* at 35.

[5] This process has been called "privatization." *See* John J. Beardsworth, Jr., *Negotiating Power Purchase Agreements: Fundamentals for Risk Allocation and Dispute Resolution, in* PROJECT FINANCING FROM DOMESTIC TO INTERNATIONAL: BUILDING INFRASTRUCTURE PROJECTS IN DEVELOPING MARKETS 1995 (PLI Commercial Law & Practice Course Handbook Series No. A4-4460, 1995) ("[M]any ... nations, including developing nations and the nations of Central Europe, are beginning to see private investment as a valuable means for promoting efficiency in power production. The efficiency will in turn raise standards of living and build a more attractive environment for economic development."); *see also* Harder, *supra* note 1, at 34 ("Privatized infrastructure projects appeal to the governments of developing countries in South Asia because such schemes reduce or eliminate the need for governments to use existing public funds or to borrow funds from traditional infrastructure lenders ... by transferring the funding obligations to private companies."); *Mission Energy in for the Long Haul*, POWER ASIA, Feb. 19, 1996, at 6 [hereinafter *Long Haul*] (noting that California-based Mission Energy Company contracted with government for $2.5 billion "BOO" power plant).

[6] ENRON GLOBAL POWER AND PIPELINES LLC, 1994 ANNUAL REPORT (1995) ("The demand for energy infrastructure grows daily around the world where economics are springing to life with an unexpected sense of urgency. Investors are signaling a desire to participate in these changes by identifying investments that provide predictable international earnings for the long term."). Enron Global Power and Pipelines ("EPP") has further stated that "[a]s the need for reliable and abundant energy escalates, ... (EPP) is providing the link between investors who want predictable international earnings and the emerging markets in need of secure capital commitments and technical expertise for energy infrastructure." *Id.* at 2-3.

[7] *See, e.g.*, ENRON GLOBAL POWER AND PIPELINES LLC, 1994 ANNUAL REPORT (1995) (discussing fast growing energy markets in India, Philippines, Guatemala, and Argentina); *Long Haul*, *supra* note 5, at 6 (discussing Paiton energy project in Indonesia); *Why Hydro Hopes to Sate Thirsty Guangdong*, POWER ASIA, Sept. 4, 1995, at 4 (discussing hydroelectric power plants on Pearl River as generating power needed to drive industrial take off in Guangdong, China); *Moves Afoot to Take Heat Out of Dabhol Row*, POWER ASIA, June 26, 1995, at 3 [hereinafter *Dabhol Row*]

tion, a subsidiary of Enron Corporation, is participating in the development of energy projects in Argentina, Guatemala, the Philippines, Columbia, India, and China.[8] Most notably, Enron developed the 2015-megawatt Dabhol Project in Maharashtra, India.[9] Mission Energy Company, a subsidiary of SCE Corporation, is also actively participating in the development of power projects in the Third World.[10] While Mission's best known project is the 1230-megawatt Paiton Power Project in Indonesia, Mission is also involved with projects in India, the Philippines, and China.[11] Similarly, CMS Generation, a subsidiary of CMS Energy Corporation, is an active participant in the development of private power projects in the Third World.[12] CMS has invested in projects that total more than 9800-megawatts in Argentina, the Philippines, and India.[13]

If such projects are to succeed, several types of risk associated with private power projects in developing countries must be addressed.[14] These risks fall into three basic categories: commercial, political, and force majeure.[15] Private power projects are typically financed on a project basis, as opposed to balance-sheet financing.[16] Under project basis financing, investors real-

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(discussing Dabhol power project in Maharashtra, India).

[8] ENRON CORP., 1994 ANNUAL REPORT (1995).

[9] *Id.*

[10] SCE CORP., 1994 ANNUAL REPORT (1995) ("Mission Energy is positioned to provide the power generation that developing countries need to continue their economic growth."); *Long Haul*, *supra* note 5, at 6 (discussing Mission's leadership role in development of Paiton Project in Indonesia); *Financing Cleared for Mission and Co.'s Paiton Project*, POWER ASIA, Apr. 28, 1995, at 1 [hereinafter *Financing Cleared for Mission*] (same).

[11] SCE CORP., 1994 ANNUAL REPORT (1995).

[12] CMS ENERGY CORP., 1994 ANNUAL REPORT (1995).

[13] *Id.*

[14] *See, e.g.*, Beardsworth, *supra* note 5, at 29 ("Be warned, then, that no private power project will be able to attract the necessary financing unless its risks are effectively accounted for and allocated and unless mechanisms are in place to resolve disputes fairly and with dispatch and at a reasonable cost."); John G. Manuel, *Common Contractual Risk Allocations in International Power Projects*, 1996 COLUM. BUS. L. REV. 37, 59 (1996) ("Over time, the [private power] project participants who are more accurate than their competitors in identifying and allocating the risks associated with their respective power projects will be more likely to succeed.").

[15] *See* Beardsworth, *supra* note 5, at 36; *see also* Harder, *supra* note 1, at 36-38 (dividing commercial risk into development/feasibility risk, construction risk, operation risk, and financial risk); Manuel, *supra* note 14, at 42 (stating that project agreements usually categorize commercial risks as construction risks, operating risks, fuel risks, market risks, and political risks).

[16] *See* Harder, *supra* note 1, at 10 ("[T]he availability of project finance is determined by the merits of the project rather than the credit of the borrower.");

ize a return on their investments only from project cash flows.[17] Project financing is typically non-recourse, meaning investors may secure against project assets but not against assets of the developer or the host nation.[18] The non-recourse nature of investment in private power projects necessitates proper mitigation and allocation of all types of risk associated with the project.[19] As a general proposition, a given risk should be borne by the party to a transaction that is best suited to control it.[20]

Part I of this article will examine the basic structure of, and identify the relevant parties to, a private power project in a developing country. Part II will examine the different types of risk associated with private power projects and suggest which parties are in the best position to bear such risks. Part III will examine the relationship between proper risk allocation and project access to international financing. Part IV will suggest steps that developing countries may take to mitigate risk, facilitate access to international financial markets, and further encourage private developers to pursue projects within such countries. Finally, Part V will discuss the social costs that a developing country may face when implementing project risk reduction measures.

Smith, *supra* note 4, at 195 ("Established electrical utilities finance new projects on the basis of their credit standing in capital markets, a method called balance-sheet financing. Private power projects, however, are usually undertaken with project financing.").

[17] *See* Smith, *supra* note 4, at 195 ("With project financing, lenders and investors look to the project's cash flow for repayment of principal and interest, and for returns on the investment.").

[18] Harder, *supra* note 1, at 40 ("The basic principal of project finance is that the project lenders look primarily to the project itself, particularly the projected output and revenues, rather than to the credit support of the sponsors or the value of the physical assets involved, as the source of repayment of the financing. Lenders, therefore, place substantial reliance on the project's performance."); *Funds and Fundamentals: Securing Sound Financing for New Electric Power Projects (Privatization in Latin America)*, LATIN FINANCE, Jan. 1, 1995, at 22 ("Nonrecourse or limited recourse project financing is financing in which the principal or only source of debt repayment is the cash flow generated by the power station."); *see also* Mark J. Riedy, *Legal and Practical Considerations in Structuring Business Transactions in India for the Conference Entitled: India Power*, 3 CARDOZO J. INT'L & COMP. L. 313, 318 (1995) ("[T]he major projects in India will proceed on a 'project finance' basis, i.e., non-recourse finance secured by the project assets (physical equipment, contracts, cash flow, etc.) and not primarily by the creditworthiness of the project sponsors or borrowing entities as is required in traditional finance.").

[19] *See* Beardsworth, *supra* note 5, at 30 (asserting that one main reason for lack of progress of private power projects in developing countries is inability to obtain financing due to poor risk allocation); Smith, *supra* note 4, at 218 (same).

[20] *See* Beardsworth, *supra* note 5, at 37; Manuel, *supra* note 14, at 38; Smith, *supra* note 4, at 218.

I. THE STRUCTURE OF A TYPICAL PRIVATE POWER PROJECT

The typical private power project in a developing country involves the participation of the host nation, a private developer, investors or lenders, and a multilateral investment institution. Because the host nation is unable or unwilling to finance energy infrastructure development with public funds, it accepts bids from private developers.[21] Developing countries have found privatization of power generation to be an attractive option because private developers are often efficient in terms of construction and maintenance of the project, willing to accept the risks associated with construction and operation, and willing to provide financing for the project.[22] The developer, on the other hand, is interested in the project because of the high profit potential associated with investing in emerging Third World markets.[23]

Generally, private power projects take one of two forms. First, the project might be conducted on a Build-Own-Operate basis ("BOO").[24] In such transactions, the developer builds the power plant inside the host country, owns the plant, and sells the power generated by the plant's operation to the public power utility of the host nation.[25] Second, the project might be conducted on a Build-Own-Operate-Transfer basis ("BOOT").[26] In a BOOT project, the developer also builds, owns, and operates the

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[21] *See* Harder, *supra* note 1, at 35.

> Despite the attention being given to the booming economies and stock markets in South Asia, the financial systems of developing countries such as Thailand, Indonesia and the Philippines are incapable of marshaling the funds needed to fund required infrastructure projects. Most South Asian countries simply cannot provide all the capital required to meet their vast infrastructure and building needs.
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> Compounding this lack of government funds to fully satisfy the basic infrastructure needs of the region is the conflicting demand by local citizens that government funds be used to support more social services and other similar programs. Such funding leaves even less money for infrastructure construction.

Id.; *see* Smith, *supra* note 4, at 190.

[22] Beardsworth, *supra* note 5, at 30; Smith, *supra* note 4, at 192; *see also New Challenges for BOT in Asia*, POWER ASIA, Feb. 19, 1996, at 4 ("According to the World Bank, many believe the private sector, operating in a competitive environment, can improve efficiency both in terms of investments and operations.").

[23] Harder, *supra* note 1, at 35; *see* ENRON GLOBAL POWER & PIPELINES LLC, 1994 ANNUAL REPORT (1995).

[24] Harder, *supra* note 1, at 36; Smith, *supra* note 4, at 190.

[25] Harder, *supra* note 1, at 36; Smith, *supra* note 4, at 190.

[26] Harder, *supra* note 1, at 36; Smith, *supra* note 4, at 190.

power plant inside the host nation.[27] A BOOT project differs from a BOO project, however, in that a BOOT project ultimately requires the developer to transfer ownership of the power plant to the public power utility.[28]

The core document to any private energy project is the power purchase agreement ("PPA"). This document creates the revenue stream against which financing is obtained and from which investment returns are realized.[29] The PPA is a contract between the private developer and the host nation or its power utility that defines the obligations of the parties and provides incentives and penalties designed to ensure performance associated with construction and operation of the project.[30] Under the PPA, the power utility pays for the energy generated by the project in a two-tier pricing system. First, the utility must make capacity payments, which are pegged to a plant's dependable generation capacity and are paid as long as the plant is capable of such capacity, whether or not the plant is ever called upon to dispatch that much power.[31] Capacity payments are designed to compensate the developer for the fixed costs associated with project construction and operation.[32] Second, the utility must make energy payments which vary depending on the amount of energy actually delivered to the utility.[33] Energy payments are designed to protect both the developer and the utility from fluctuating fuel and operation costs.[34]

The developer is responsible for securing financing for the project.[35] This can be accomplished through any of the traditional methods of raising capital, including debt and equity offerings, and loans from commercial banks.[36] Because of the non-

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[27] Harder, *supra* note 1, at 36; Smith, *supra* note 4, at 190.

[28] Harder, *supra* note 1, at 36; Smith, *supra* note 4, at 190.

[29] Beardsworth, *supra* note 5, at 32; Smith, *supra* note 4, at 226.

[30] Beardsworth, *supra* note 5, at 32; Smith, *supra* note 4, at 226-27.

[31] Beardsworth, *supra* note 5, at 37-38; Smith, *supra* note 4, at 210-13.

[32] Beardsworth, *supra* note 5, at 37-38; Smith, *supra* note 4, at 210-13. The fixed costs in the capacity payments generally consist of construction, maintenance, and fixed fuel costs, as well as financing and insurance. Beardsworth, *supra* note 5, at 31-32.

[33] Beardsworth, *supra* note 5, at 39; Smith, *supra* note 4, at 210-13.

[34] Beardsworth, *supra* note 5, at 39; Smith, *supra* note 4, at 210-13.

[35] Beardsworth, *supra* note 5, at 39; Smith, *supra* note 4, at 210-13.

[36] Smith, *supra* note 4, at 198; *see* Harder, *supra* note 1, at 36.

Although privatization of infrastructure can take many forms, the most common forms being considered in South Asia involve a consortium submitting a proposal to finance, design, build and operate the project .... The

recourse nature of project finance, however, lenders and investors often require credit enhancement before committing capital to the project.[37] Frequently, a guarantee from the host government against political risk will serve this purpose.[38] Multilateral and regional development financing institutions also provide this type of credit enhancement to parties that meet specific criteria.[39] Examples of such institutions include the International Bank of Reconstruction and Development ("World Bank"),[40] the Multilateral Investment Guarantee Agency ("MIGA"),[41] and United States Export Import Bank ("U.S. Eximbank").[42]

II. RISKS ASSOCIATED WITH PRIVATE POWER PROJECTS

A. Commercial Risks

A project developer first encounters commercial risk during the bidding process when the host nation could award the project to another bidder, the developer could fail to obtain favorable terms in contract negotiation, or the developer's bid could be summarily rejected.[43] To guard against these risks, the developer must investigate the project's feasibility before submitting its bid.[44] Important feasibility issues include: 1) the likely customer base of the project; 2) the existence of competitive power suppliers in the same market in which the developer intends to operate; 3) the costs of acquiring the project site and the services

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> typical members of the consortium include a [developer], a contractor, a technology supplier, an operator, leaders and equity providers (investors). The consortium may also include a minority equity participation by the host government.

Harder, *supra* note 1, at 36.

[37] *See* Peter F. Fitzgerald, *Overview of Risks in International Financing*, *in* PROJECT FINANCING: BUILDING INFRASTRUCTURE PROJECTS IN DEVELOPING MARKETS 1996, at 11 (PLI Commercial Law & Practice Course Handbook Series No. A-734, 1996).

[38] *Id.* at 14-16.

[39] *Id.* at 15.

[40] *See* BARRY E. CARTER & PHILIP R. TRIMBLE, INTERNATIONAL LAW 530 (2d ed. 1995); PHILIP A. STEPHAN ET AL., INTERNATIONAL BUSINESS AND ECONOMICS: LAW AND POLICY 249 (1993); Fitzgerald, *supra* note 37, at 15.

[41] *See* CARTER & TRIMBLE, *supra* note 40, at 531; STEPHAN ET AL., *supra* note 40, at 250.

[42] *See* STEPHAN ET AL., *supra* note 40, at 252; Fitzgerald, *supra* note 37, at 16.

[43] *See* Harder, *supra* note 1, at 37.

[44] *See id.* Developers can obtain funding assistance for feasibility studies from a number of international sources. *See* Riedy, *supra* note 18, at 318 n.3 (describing sources of feasibility funding assistance).

necessary for operation, such as fuel supplies, energy distribution networks and communications systems; 4) the availability of operating licenses and permits from the host nation; 5) the environmental impact of the project; 6) the availability and convertibility of currencies and the impact of foreign exchange controls imposed by the host nation; and 7) the availability of insurance against both commercial and political risk.[45]

Once the host nation accepts a developer's bid, the developer faces a number of additional commercial risks.[46] These risks include: 1) whether the developer can repatriate profits; 2) whether the project facility fails to operate properly over the life of the project; 3) whether the growth of the purchasing utility's demand for energy ("load growth") is slower than projected during negotiations; 4) whether the purchasing utility is able to make timely payments for energy purchased; 5) whether the host nation is able and willing to meet the obligations of its utility; 6) whether the utility is able to maintain the parts of the energy distribution network for which it is responsible; and 7) whether fuel costs will rise beyond the point where the project can be profitable.[47] The host nation and its power utility also face commercial risk after acceptance of the developer's bid.[48] These risks include: 1) whether project construction is completed in a timely fashion; 2) whether project development generates cost overruns or inflated construction costs; 3) whether satisfactory operation and maintenance procedures are in place; and 4) whether energy capacity shortfalls occur during project operation.[49]

Commercial risks are addressed and allocated between the developer and the host nation in the PPA.[50] The PPA allocates these risks using three basic mechanisms: 1) the two-tier pricing system; 2) a bonus and penalty system; and 3) a requirement that the developer provide a performance guarantee.[51] As discussed previously, the two-tier pricing system is composed of capacity and energy payments, which represent the host nation's

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[45] Harder, *supra* note 1, at 37.

[46] *See* Beardsworth, *supra* note 5, at 36-37.

[47] *Id.*; *see* Harder, *supra* note 1, at 37-39; Smith, *supra* note 4, at 220-21.

[48] *See* Beardsworth, *supra* note 5, at 36-37.

[49] *Id.*; *see* Harder, *supra* note 1, at 37-39.

[50] *See* Beardsworth, *supra* note 5, at 35-36; *see also* Smith, *supra* note 4, at 264-68 (setting forth key provisions of typical PPA designed to allocate commercial risks between developer and host nation).

[51] *See* Beardsworth, *supra* note 5, at 37-41; Smith, *supra* note 4, at 226-27.

payment obligation for project development and operation.[52] Capacity payments are fixed relative to the project's dependable energy generation capacity and must be paid by the power utility whether or not the plant is called upon to deliver power.[53] Capacity payments are designed to compensate the developer for fixed costs, including development and construction costs, fixed operation and maintenance costs, insurance and financing costs, and return on equity investments.[54] Energy payments, in contrast, vary in relation to the amount of energy the developer actually delivers to the power utility.[55] Energy payments are designed to cover the cost of fuel and the variable operation and maintenance costs associated with the actual production of energy.[56]

The PPA also provides for a system of bonuses and penalties designed to ensure the developer's performance under the agreement.[57] Often, bonuses and penalties take the form of adjustments to capacity and energy payments.[58] For example, the developer can be penalized for construction cost overruns, delayed project completion, and generation capacity shortfalls during project operation.[59] The developer can, however, receive bonuses for completing construction early or under budget, or for generating greater capacity than required under the PPA.[60]

Finally, the PPA often requires that the developer provide a performance guarantee in the form of either a performance bond, corporate guarantee, or letter of credit.[61] If the developer fails to perform its obligations under the PPA, the performance guaran-

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[52] *See* Beardsworth, *supra* note 5, at 37-39; Smith, *supra* note 4, at 210-13.

[53] *See* Beardsworth, *supra* note 5, at 37-38; Smith, *supra* note 4, at 210-13. "[M]onthly capacity payments are generally calculated as the product of capacity rate multiplied by the dependable capacity for the month ...." Manuel, *supra* note 14, at 45.

[54] Beardsworth, *supra* note 5, at 37-38. *See generally*, Manuel, *supra* note 14, at 42-59 (discussing shifting of construction, operating, fuel, market, and political risks from private developer to public sector utility through calculation of monthly capacity payments under PPA).

[55] Beardsworth, *supra* note 5, at 39; Smith, *supra* note 4, at 210-13.

[56] Beardsworth, *supra* note 5, at 39; *see* Smith, *supra* note 4, at 210-13 (distinguishing projects with state-owned fuel sources from projects with privately owned fuel sources).

[57] *See* Beardsworth, *supra* note 5, at 39; Smith, *supra* note 4, at 211.

[58] Beardsworth, *supra* note 4, at 39.

[59] *Id.* at 39-40.

[60] *Id.*

[61] *Id.* at 40-42.

tee may authorize the power utility to suspend capacity payments and draw upon the security fund created by the guarantee.[62]

Through these contractual risk allocation provisions, the developer and its lenders assume the risk of construction cost overruns and inadequate capacity generation.[63] These risks are appropriately borne by the developer because the developer has a more direct influence upon the details of the plant's operation and construction and can mitigate the risk by implementing effective management practices.[64]

Conversely, the power utility and the host nation bear the risk of factors that are outside of the developer's control.[65] These factors include fuel costs and the actual demand for energy generated by the project facility.[66] The host nation assumes these risks by making the capacity and energy payments required under the PPA.[67] These risks are also properly allocated because the host nation is in the best position to mitigate them through its economic development policy.[68]

B. Political Risks

While commercial risks are common to all types of project financing, extensive political risk is more closely related to private infrastructure projects in developing countries.[69] If a pri-

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[62] *Id.*

[63] *See* Beardsworth, *supra* note 5, at 35-37 (discussing allocation of commercial risks); Smith, *supra* note 4, at 218-21 (same).

[64] *See* Beardsworth, *supra* note 5, at 37; Smith, *supra* note 4, at 218.

[65] *See* Beardsworth, *supra* note 5, at 35-37 (discussing allocation of commercial risks); Smith, *supra* note 4, at 218-21 (same).

[66] *See* Beardsworth, *supra* note 5, at 39 (discussing energy payments); Smith, *supra* note 4, at 210 (same).

[67] *See* Beardsworth, *supra* note 5, at 37-39 (discussing two-tier pricing system); Smith, *supra* note 4, at 211-13 (same). Under the PPA, capacity payments must be made by the host nation or the power utility throughout the term of the PPA regardless of whether the developer actually delivers energy to the power utility. *See* Smith, *supra* note 4, at 219. Even if the market demand for power falls below the level contemplated by the host nation or power utility, the developer receives its intended rate of return. *Id.*

[68] *See* Beardsworth, *supra* note 5, at 37 (examining proper division of risk allocation between developer and host nation); Smith, *supra* note 4, at 218.

[69] *See* Beardsworth, *supra* note 5, at 43 (noting political risks inherent in financing private power projects in developing countries); Fitzgerald, *supra* note 37, at 9 (explaining risks unique to investing in private power projects); Judd L. Kessler, *A World of Risks*, PUB. UTIL. FORT., Aug. 1, 1993, at 11, 11-12 (discussing political risks to privatization projects in developing countries occasioned by external debt

vate power project in a developing country is to succeed, the developer must address and appropriately allocate several types of political risk.[70]

1. Currency-Related Risks

Currency-related risks include three different types of risk: inconvertibility risk, transfer risk, and devaluation risk.[71] Inconvertibility risk occurs when the host nation experiences severe foreign exchange shortages which lead to either the central bank's inability to convert local currency into hard currency or the enactment of a monetary policy which restricts the conversion of local currency into hard currency.[72] This risk exists because the power utility typically makes capacity and energy payments in the host nation's currency, while the developer must service its debt and pay dividends on equity investment in hard currency.[73] If the developer is unable to convert project revenues from local to hard currency, it will be unable to service its debt or provide returns on equity investment, and the project will, therefore, fail.[74]

Transfer risk represents the possibility that the host nation's central bank will recognize its foreign exchange obligations to the developer and the developer's lenders and convert project revenues from local to hard currency on the central bank's books, but refuse to allow hard currency to be transferred out of the host nation.[75] Often, the refusal of a host nation to transfer hard currency beyond its borders is a prelude to the government's de-

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burdens and fiscal deficits).

[70] *See* Beardsworth, *supra* note 5, at 43; Smith, *supra* note 4, at 221.

[71] Fitzgerald, *supra* note 37, at 9; *see* George T. Ellinidis, *Foreign Direct Investment in Developing and Newly Liberalized Nations*, 4 J. INT'L L. & PRAC. 299, 315-16 (1995) (discussing expropriation and inconvertibility risks); Beardsworth, *supra* note 5, at 43; Smith, *supra* note 4, at 222 (analyzing currency risks and their effect on private power projects).

[72] "Hard currency" is defined as all major convertible currencies, including the U.S. dollar, the British pound, the German mark, the Japanese yen, the French franc, the Swiss franc, the Italian lira, and the Dutch guilder. Smith, *supra* note 4, at 191.

[73] Fitzgerald, *supra* note 37, at 9; Smith, *supra* note 4, at 222.

[74] Manuel, *supra* note 14, at 57; *see* Fitzgerald, *supra* note 37, at 9 (noting need to examine closely host nation's foreign exchange reserves prior to commencing negotiation of PPA); *see also* Riedy, *supra* note 18, at 335-36 (discussing positive steps taken by Indian government to reduce currency risk).

[75] Fitzgerald, *supra* note 37, at 9.

fault on, or restructuring of, its foreign exchange obligations.[76]

Devaluation risk is the risk that the host nation's currency value will decrease to the extent of impeding the developer's ability to service its debt.[77] Typically, devaluation risk is high in developing countries.[78] While devaluation of the host nation's currency increases project revenues through inflation, devaluation also increases the developer's inconvertibility risk because the developer will be less able to generate sufficient local currency to service its hard currency debt obligations.[79]

There are a number of ways in which the developer can either mitigate or shift the burdens of inconvertibility and transfer risks.[80] First, the developer may obtain foreign exchange rights under the laws of the host nation by negotiating for access to hard currency at free-market rates through the host nation's central bank.[81] This solution, however, is effective only to the extent that the host nation's legal system is conducive to recovery by foreign creditors seeking to enforce their contractual rights.[82] Second, the developer should try to obtain preferential foreign

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[76] *Id.*

[77] *Id.*; Smith, *supra* note 4, at 222.

[78] *See* Fitzgerald, *supra* note 37, at 9 ("In developing countries with soft currencies, the likelihood of devaluation is high and the ability to hedge against or insure the risk is very limited.").

[79] *Id.*

[80] *See* Ellinidis, *supra* note 71, at 316-30 (examining forms of political risk insurance which protect developer from devaluation of host nation's currency); Fitzgerald, *supra* note 37, at 11 (analyzing methods developers may utilize to shift devaluation risk to host government); Mark Kantor, *Summary of Project Financing Programs of: U.S. Eximbank, OPIC, JEXIM, ECGD, in* PROJECT FINANCING FROM DOMESTIC TO INTERNATIONAL: BUILDING INFRASTRUCTURE PROJECTS IN DEVELOPING MARKETS 1995, at 111 (PLI Commercial Law & Practice Course Handbook Series No. A4-4460, 1995); Smith, *supra* note 4, at 222 (discussing allocation of currency risk through governmental regulations).

[81] *See* Fitzgerald, *supra* note 37, at 13 (stressing importance of obtaining currency exchange rights under PPA); Smith, *supra* note 4, at 222 (same).

[82] *See* Smith, *supra* note 4, at 222. Project lenders may discover that the host nation's laws do not provide the requisite level of protection. The lenders may demand that the transaction be structured in such a way as to shield the lender from currency risks. John Teolis, *Issues in Project Finance, in* ECONOMIC DEVELOPMENT, FOREIGN INVESTMENT AND THE LAW 197, 204 (Robert Pritchard ed., 1996). If the host nation responds to the lender's concerns by implementing poorly designed reforms, particularly without consulting domestic private sector, the reforms may weaken the local economy and decrease the host nation's ability to enact subsequent reform policies designed to entice foreign investment. Douglas Webb, *Legal System Reform & Private Sector Development in Developing Countries, in* ECONOMIC DEVELOPMENT, FOREIGN INVESTMENT AND THE LAW 45, 53 (Robert Pritchard ed., 1996).

exchange treatment from the host nation.[83] The extent to which securing these rights will be possible, however, depends upon the scope and importance of the project to the nation's development.[84] Third, the developer can mitigate inconvertibility and transfer risk by purchasing derivative instruments such as currency swaps, options, or forward contracts.[85] Finally, the developer can shift currency risk by obtaining political risk insurance from multilateral sources such as the MIGA and the International Finance Corporation ("IFC"),[86] or bilateral sources such as the Overseas Private Investment Corporation ("OPIC") and the U.S. Eximbank.[87]

Devaluation risk, however, is more difficult to shift to political risk insurers.[88] For example, neither MIGA or OPIC insurance protects against devaluation risk.[89] Mitigation of this risk will depend on the extent to which the developer can negotiate host government support in the form of linking local currency capacity and energy payments to hard currency values.[90] Such measures are only as effective as the host nation's ability to meet

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[83] *See* Fitzgerald, *supra* note 37, at 14.

[84] *Id.*

[85] *See* Smith, *supra* note 4, at 222 (listing currency swaps and foreign currency purchases as typical means of mitigating currency risk); Teolis, *supra* note 82, at 206 (citing hedge agreements as appropriate means of allocating currency risk).

[86] *See* Beardsworth, *supra* note 5, at 35; Ellinidis, *supra* note 71, at 316-30; Fitzgerald, *supra* note 37, at 14; Smith, *supra* note 4, at 223. Two main sources for multilateral political risk insurance are the World Bank's Extended Co-financing guarantee program ("ECO") and the Multilateral Investment Guarantee Agency's ("MIGA") insurance program. ECO provides guarantees to commercial lenders as well as extended maturities to facilitate financing for private projects, while MIGA provides coverage for specific political risks. Political risk insurance tends to run for twenty years, but the coverage is usually limited to US $50 million per project. *Id.*; *see also* Beardsworth, *supra* note 5, at 35 (stressing importance of having political risk insurance to protect investment); Ellinidis, *supra* note 71, at 316-30 (analyzing investment requirements and coverage offered by MIGA, OPIC, and other political risk insurers); Fitzgerald, *supra* note 37, at 13 (examining multilateral sources for political risk insurance, including MIGA, multilateral "B" loans, and World Bank guarantees).

[87] *See* Beardsworth, *supra* note 5, at 35; Ellinidis, *supra* note 71, at 316-30; Fitzgerald, *supra* note 37, at 14; Kantor, *supra* note 80, at 111; Smith, *supra* note 4, at 223.

[88] *See* Ellinidis, *supra* note 71, at 315 (noting developers must obtain private insurance in order to allocate devaluation risk successfully); Fitzgerald, *supra* note 37, at 14-16 (analyzing differences in coverage offered by multilateral and bilateral political risk insurers).

[89] Fitzgerald, *supra* note 37, at 14-16.

[90] *See* Fitzgerald, *supra* note 37, at 13; Smith, *supra* note 4, at 222.

its foreign exchange obligations.[91] Developers should, therefore, balance the economic health and stability of the host nation against potential profits when determining project feasibility.[92]

2. Expropriation Risk

Expropriation risk is the risk that the host nation will nationalize a private power project in a capricious or discriminatory manner without providing just compensation.[93] Expropriation can occur overtly through a governmental act, or more discretely, through a series of measures designed to decrease project profitability to the point where the developer abandons the project.[94] While a government's failure to pay just compensation is a violation of international law, the definition of "just compensation" has been a point of dispute.[95] The traditional U.S. definition requires that the compensation be "just, adequate and effective."[96] This definition, however, is only beginning to emerge as the international norm.[97]

The developer can manage expropriation risk by obtaining political risk insurance from multilateral sources such as the Asian Development Bank ("ADB") or the IFC, and bilateral sources such as OPIC.[98] In addition, expropriation risk can be mitigated by requiring the host nation to create an offshore collateral account containing sufficient hard currency to service the

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[91] *See supra* note 73 and accompanying text (discussing foreign exchange shortages).

[92] *See* Harder, *supra* note 1, at 39.

[93] *See* Ellinidis, *supra* note 71, at 314-15 (noting that nationalization of foreign-owned property is legal so long as practice is not done in discriminatory manner, nationalization serves public purpose, and host nation provides just and fair compensation); Fitzgerald, *supra* note 37, at 9-10. While nationalization of foreign-owned companies has not been a frequent occurrence since the 1970's, private project investors should not underestimate the potential risks posed by nationalization. *See generally* Amy L. Chua, *The Privatization-Nationalization Cycle: The Link Between Markets and Ethnicity in Developing Countries*, 95 COLUM. L. REV. 223 (1995) (analyzing cyclical nature of nationalization and positing that nationalization will reappear in near future in accordance with cyclical pattern).

[94] Fitzgerald, *supra* note 37, at 9-10.

[95] Ellinidis, *supra* note 71, at 314-15; Fitzgerald, *supra* note 37, at 9-10.

[96] Ellinidis, *supra* note 71, at 314-15; Fitzgerald, *supra* note 37, at 9-10.

[97] Ellinidis, *supra* note 71, at 314-15; Fitzgerald, *supra* note 37, at 9-10.

[98] *See* Ellinidis, *supra* note 71, at 316 (stating purpose of insurance programs is to allocate political risk in order to promote foreign investment in developing countries); Smith, *supra* note 4, at 222-23 (discussing scope of coverage offered by MIGA and ECO); *see also ADB Joins Ghazi Stampede with $300m Loan*, POWER ASIA, Jan. 22, 1996, at 11 (describing ADB funding of hydroelectric project in Pakistan).

developer's debt in the event of a governmental taking.[99] Finally, the developer can obtain a written agreement from the host nation which prohibits nationalization.[100]

3. Risk of Governmental Default on Payment Guarantees

Risk of governmental default on payment guarantees arises when both the power utility and the host nation are unable or unwilling to meet the power utility's obligations under the PPA.[101] Sovereign guarantees are typically embodied in the implementation agreement, which is a contract between the developer and the agencies of the host nation authorized to provide guarantees, assurances, and other types of project support.[102] Host nations often default on guarantees by obstructing convertibility of their currency or by making foreign exchange unavailable.[103] To mitigate this risk, the developer should obtain political risk insurance from multilateral and bilateral sources.[104]

4. Host Nation's Legal Treatment of Security Interests

Since the legal systems of many developing countries may be unsophisticated and volatile, the ability of developers to obtain financing can be hampered by poorly developed debtor-creditor laws in host nations.[105] For example, a host nation may have in place a system that recognizes security interests, but no regis-

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[99] Fitzgerald, *supra* note 37, at 13.

[100] Manuel, *supra* note 14, at 57. Such an agreement could only be enforced in the host nation. The effectiveness of this agreement, therefore, would depend upon the presence of an independent judiciary. *Id.*

[101] Beardsworth, *supra* note 5, at 43 (explaining risk to investment should host nation default on payment guarantee); *see also Dabhol Row*, *supra* note 7, at 3 (discussing threat to Enron project in India by newly elected state government's refusal to honor commitments made by its predecessor and Indian government); ENRON CORP., 1995 FORM 10Q (Sept. 30, 1995) (same).

[102] Beardsworth, *supra* note 5, at 43.

[103] *Id.*

[104] *See* Smith, *supra* note 4, at 222; *see also* Ellinidis, *supra* note 71, at 316-30 (describing multilateral and bilateral sources of political risk insurance); Fitzgerald, *supra* note 37, at 14-18 (same). *See generally supra* note 86 and accompanying text (discussing multilateral risk insurance providers).

[105] *See* David Flint et al., *Constitutional and Legislative Safeguards for FDI: A Comparative Review Utilizing Australia and China*, *in* ECONOMIC DEVELOPMENT, FOREIGN INVESTMENT AND THE LAW 103, 103-04 (Robert Pritchard ed., 1996) (positing that foreign investors and project lenders will not finance privatization projects when host country's legal system offers inadequate protection for foreign investments); Fitzgerald, *supra* note 37, at 11 (noting that underdeveloped legal systems create uncertainty in minds of external investors).

tration system which establishes priority among competing security interests.[106] The risk borne by the project lenders in these situations will be passed on to the developer and, ultimately, the power utility in the form of increased financing costs and capacity payments.[107] The only way for the developer to mitigate this risk is to consider the treatment of security interests carefully when determining project feasibility.[108]

5. Risks Associated with the Laws of the Host Nation

Given the underdeveloped nature of the host government's legal system, developers must decide whether the host nation has a legal and regulatory system that is conducive to private power projects.[109] The developer must determine whether the host nation has a stable system of law and an impartial court system which allow private parties to seek redress against public entities.[110] Moreover, the developer must consider whether the host nation will take lawful actions that render the project unprofitable.[111] For example, the host nation may impose import and export restrictions, price controls, or excessive taxation, which threaten project profitability.[112]

The host government's control of numerous goods and services critical to project construction and operation compound this risk.[113] Often, in developing countries, state controlled goods and services include fuel supplies and transportation systems.[114] The necessity of the developer's reliance on government controlled

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[106] Fitzgerald, *supra* note 37, at 11; *see* George M. Knapp, *International Power Projects: Making the Business Opportunities Achievable*, 8 NAT. RESOURCES & ENV'T 30, 32 (1993) (describing need for foreign investors to understand ability to perfect security interest in accounts or receivables).

[107] *See* Fitzgerald, *supra* note 37, at 10.

[108] *See supra* notes 43-45 and accompanying text (discussing feasibility issues).

[109] *See* Fitzgerald, *supra* note 37, at 11 ("The legal systems of most developing countries continue to be less developed than in industrialized countries and this leads to uncertainty as to the legal environment the borrower must operate in and the lender will encounter if it is ever compelled to enforce its rights."); Harder, *supra* note 1, at 39 ("To attract foreign equity investment, foreign investors must be satisfied that the host country has an overall legal and regulatory system which is conducive to foreign investment.").

[110] Harder, *supra* note 1, at 39.

[111] *See* Fitzgerald, *supra* note 37, at 16-17; Manuel, *supra* note 14, at 55.

[112] *See* Fitzgerald, *supra* note 37, at 16-17; Manuel, *supra* note 14, at 55.

[113] *See* Fitzgerald, *supra* note 37, at 16-17; *see also* Smith, *supra* note 4, at 204 (discussing impact of fuel costs when fuel source is both state owned and privately owned).

[114] Fitzgerald, *supra* note 37, at 10.

goods and services enhances the risks associated with the stability and fairness of the host nation's legal and regulatory systems.[115]

It is unlikely that the developer can shift this risk to political insurance carriers, because the insurer will have no recourse against the host nation for lawful actions within its own borders.[116] Mitigation of this risk, therefore, is based primarily on the developer's risk assessment during the project feasibility investigation.[117] Developers should identify developing countries with stable legal and regulatory systems and target those countries for project bids.[118] The developer should also use favorable choice of law and forum selection clauses as negotiating tools with the host nation to obtain favorable offshore dispute resolution procedures[119] or compensation for risk assumption in the form of higher capacity payments from the power utility.[120] Host nations can minimize the impact of the legal system risk on project costs by instituting legal reforms that ensure fair and swift dispute resolution.[121]

6. Risk of Civil Unrest

Political violence in the host nation (including war, insurrection, terrorism, or labor strikes) can interrupt and even terminate a power project's cash flows, preventing the developer

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[115] *Id.*

[116] *Id.* at 16-17.

[117] *See supra* notes 43-45, 108 and accompanying text (discussing feasibility issues).

[118] *See, e.g.*, Riedy, *supra* note 18, at 325 (describing legal system in India as favorable to foreign investment based on its similarities to British and American systems).

[119] *See* Beardsworth, *supra* note 5, at 47-48 (discussing negotiation for arbitration clauses in PPAs); Fitzgerald, *supra* note 37, at 11 (suggesting that lenders seek New York or English choice of law clauses and offshore arbitration clauses in loan agreements, and emphasizing importance of host country adherence to New York International Convention of Recognition and Enforcement of Foreign Arbitral Awards of 1958); Riedy, *supra* note 18, at 349 (noting that India is party to New York International Convention of Recognition and Enforcement of Foreign Arbitral Awards); *see also UCH Financing Stalled Over Collateral Pledge*, POWER ASIA, Sept. 4, 1995, at 12 (discussing delay in closing of power project in Pakistan resulting from disagreement between local utility, U.S. Eximbank and IFC over choice of law provisions in project contracts).

[120] *See* Beardsworth, *supra* note 5, at 49-51 (comparing potential strategies for negotiating PPAs).

[121] *See* Harder, *supra* note 1, at 39 n.23 (advocating inclusion of independent arbitration provision in PPAs to ensure greater protection for foreign investors).

from servicing its debt.[122] Because political violence is often temporary, the developer can mitigate its risk by requiring the host government to create an offshore collateral account with sufficient debt service reserves to protect the developer and its lenders from temporary business interruption.[123] The developer can further mitigate this risk by securing adequate physical protection for the project facilities.[124] Finally, the risk of political violence can be shifted to political risk insurers such as MIGA and OPIC.[125]

C. Force Majeure Risks

Force majeure risk is the risk that a party's performance of contractual obligations will be rendered impossible by events not within the performing party's reasonable expectation or control.[126] Force majeure events that could halt project construction or operation include natural and technical disasters and acts of terrorism or war.[127] Since neither the developer nor the host nation can control this risk, neither party should bear it alone.[128] Force majeure risk can be mitigated through the purchase of commercial insurance coverage,[129] which should extend to the construction and operation phases of the project and insure against both asset loss and business interruption.[130]

III. RISK ALLOCATION AND ACCESS TO FINANCING

A. Project Financing

In developed countries, public utilities seeking to build power plants can use internal funds and borrow from capital

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[122] *See* Beardsworth, *supra* note 5, at 44; Ellinidis, *supra* note 71, at 314; Fitzgerald, *supra* note 37, at 10; Harder, *supra* note 1, at 39.

[123] *See* Fitzgerald, *supra* note 37, at 18; *see also* Beardsworth, *supra* note 5, at 44 (suggesting possible risk mitigation technique of requiring continued capacity payments during periods of political unrest); Manuel, *supra* note 14, at 58 (suggesting risk mitigation technique of requiring host nation or power purchaser to purchase facility during period of extended political unrest or war).

[124] *See* Fitzgerald, *supra* note 37, at 18.

[125] *See* Ellinidis, *supra* note 71, at 314; Fitzgerald, *supra* note 37, at 18 (discussing coverage under MIGA and OPIC).

[126] *See* Beardsworth, *supra* note 5, at 45; Smith, *supra* note 4, at 223.

[127] Beardsworth, *supra* note 5, at 45.

[128] *See id.*

[129] *Id.*; Smith, *supra* note 4, at 223.

[130] Beardsworth, *supra* note 5, at 45; Smith, *supra* note 4, at 223.

markets because developed countries have strong credit ratings and stable economic and political systems.[131] In developing countries, however, construction and operation of power plants has become increasingly privatized and financed on a project basis.[132] The project is developed by a private entity and investors and lenders seek repayment of principal, interest, and return on equity from the project's cash flows, collateralizing the project's assets to protect against default.[133] Developing countries have begun to privatize infrastructure development because they lack the capital to fund it publicly.[134] Power plant development is financed on a project basis for two basic reasons: 1) lenders and investors are unwilling to assume the political risk involved because developing countries have poor credit ratings and unstable economic and political systems; and 2) lenders and investors are unable to accurately assess commercial risk because the project company, typically formed for the sole purpose of the individual project, has no performance record or credit rating.[135] If the project company defaults on its obligations to lenders or investors, there is recourse against the project company's assets, but not against the assets of the developer that formed the project company.[136] The lender's risk assessment, therefore, focuses on the commercial, technical, and political risks of the project rather than the creditworthiness of the power utility and the host nation.[137] For this reason, lenders often require equity contributions to the project company from the developer, ranging from twenty to twenty-five percent.[138]

B. Private Sources of Capital

The traditional source of financing for private power projects in developing countries is commercial lenders.[139] Commercial lending is often the cheapest form of financing because it is most

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[131] *See* Smith, *supra* note 4, at 207.

[132] *Id.*

[133] *Id.*

[134] Harder, *supra* note 1, at 35; Smith, *supra* note 4, at 199; *see supra* note 5, and accompanying text.

[135] *See* Smith, *supra* note 4, at 207.

[136] *Id.*

[137] *Id.*

[138] *Id.*

[139] *See* Fitzgerald, *supra* note 37, at 12-13; Harder, *supra* note 1, at 36; Smith, *supra* note 4, at 14.

senior in terms of repayment priority.[140] Commercial lenders, however, may be unwilling to supply capital either entirely, or to certain phases of development.[141] Developers who are unable to obtain commercial loans may utilize several other potential sources of capital.[142] First, the developer can issue a private placement of securities.[143] Second, the developer can offer securities outside the United States and enjoy the exemption to United States registration embodied in SEC Regulation S.[144] With both private placements and offshore offerings, the developer can issue either debt or equity instruments.[145] In addition, the buyer in each of these situations may resell these securities within the United States without registration if the security complies with SEC Rule 144A.[146] Rule 144A provides a safe harbor from registration in the United States for resales to "qualified institutional buyers" of securities that are not of the same class as securities publicly traded in United States markets.[147] Finally, the developer can offer both debt and equity se-

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[140] *See* VICTOR BRUNDY & MARVIN A. CHIRELSTEIN, CORPORATE FINANCE, CASES AND MATERIALS 136-38 (1987).

[141] *See* Smith, *supra* note 4, at 15. For example, lenders often require equity investment during the operation phase of a power project but will completely fund the construction phase. *Id.*

[142] *See* Smith, *supra* note 4, at 15.

[143] *See, e.g.*, SEC v. Ralston Purina Co., 346 U.S. 119 (1953); Doran v. Petroleum Mgt. Corp., 545 F.2d 893 (5th Cir. 1977); JAMES D. COX ET AL., SECURITIES REGULATION, CASES AND MATERIALS 375-77 (1991). A private placement is an offering by an issuer of securities to a limited number of sophisticated investors who have access to the type of information that must be disclosed in a registration statement under section five of the Securities Act of 1933. Securities Act of 1933 § 4(2), 15 U.S.C. § 77d(2) (1994) ("The provisions of section 5 shall not apply to transactions by an issuer not involving any public offering.").

[144] SEC Regulation S, 17 C.F.R. §§ 230.901-.904 (1996). In order to determine whether the Section 5 registration requirements apply to a given securities transaction, courts weigh four factors: (1) the number of offerees and their relationship to the issuer and each other; (2) the number of units offered; (3) the size of the offering; and (4) the public nature of the offering. *See Raslton Purina Co.*, 346 U.S. at 124-26; *Doran*, 545 F.2d at 899-900.

[145] *See id.*; 15 U.S.C. § 77d(2).

[146] SEC Rule 144A, 17 C.F.R. § 230.144A (1996); *see* RICHARD W. JENNINGS, SECURITIES REGULATION: CASES AND MATERIALS 1595 (1992).

[147] 17 C.F.R. § 230.144A(d)(3). In order to qualify as a "qualified institutional buyer," the purchaser must be either:

> (i) a registered broker-dealer that owns and invests in a discretionary basis at least $10 million in securities of issuers not affiliated with the broker-dealer; (ii) an institution of the type enumerated in [Rule 144A] (other than a bank or savings and loan association) that owns and invests on a discretionary basis at least $100 million in securities of issuers not affiliated with

curities to the public in the United States.[148] Public offerings, however, generate onerous and expensive registration requirements under section five of the Securities Act of 1933.[149]

C. Public Sources of Funding

The inability of a developer to mitigate or shift political risk will impede its ability to acquire financing.[150] Developers, therefore, often internationalize the risk by co-financing the project with international agencies that provide credit enhancements to encourage private investment in developing countries.[151]

1. Multilateral Sources

An important source of financing for Third World development is the World Bank.[152] The World Bank was created in 1944 to promote the reconstruction and economic development of war-torn Europe.[153] Today, the World Bank's purpose is to promote economic and social progress in developing nations.[154] Two affiliates of the World Bank group, the IFC and MIGA, provide important financing for the developers of private power projects in the Third World. The IFC was established in 1956 to assist the economic development of less developed nations by promoting direct lending and private foreign investment in the private sector of underdeveloped nations.[155] The IFC protects developers against inconvertibility, transfer, and expropriation risks by providing loans in which there is one hundred percent participa-

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the institution or (iii) a bank or a savings and loan meeting the $100 million investment test that also has a net worth of at least $25 million.

Alan K. Austin & Gregory M. Priest, *Resales of Securities Under Rule 144 and Rule 144A*, *in* SECURITIES FILINGS 1995, at 441, 452 (PLI Commercial Law & Practice Course Handbook Series No. A4-4493, 1995).

[148] *See* Smith, *supra* note 4, at 209.

[149] *Id.*; *see* 15 U.S.C. § 77e.

[150] *See supra* note 14 and accompanying text.

[151] Fitzgerald, *supra* note 37, at 16.

[152] *See* CARTER & TRIMBLE, *supra* note 40, at 530; STEPHAN ET AL., *supra* note 40, at 249.

[153] CARTER & TRIMBLE, *supra* note 40, at 530.

[154] STEPHAN ET AL., *supra* note 40, at 250. For a discussion of World Bank financing of private power projects in developing countries, see *World Bank Backs Private Power Schemes*, POWER ASIA, Jan. 22, 1996, at 13 (describing World Bank's Private Sector Infrastructure Development Project which will initially create fund of $150 to $200 million); *WB to Fund Ghazi Barotha Pending IMF Talks*, POWER ASIA, Nov. 13, 1995, at 14 (describing World Bank financing of power project in Pakistan).

[155] CARTER & TRIMBLE, *supra* note 40, at 531.

tion by a commercial bank or syndicate of banks.[156] MIGA was established in 1988 to encourage direct investment in developing countries.[157] MIGA insures up to ninety percent of the developer's debt, to a ceiling of fifty million dollars, but only if the developer insures its own equity investment.[158] In 1995, the World Bank lent over two hundred and seventy million dollars to South Asian countries alone for energy projects.[159]

2. Bilateral Sources

In addition to the multilateral sources of development financing assistance, many governments of developed countries provide direct funding.[160] The United States, for example, provides two important credit enhancement programs which facilitate direct investment in developing countries. The first is OPIC, an independent U.S. government-owned corporation which insures investments in developing countries.[161] OPIC provides political risk insurance to U.S. developers and commercial lenders covering one hundred percent of the inconvertibility and transfer currency risks, expropriation risk, and political violence risk.[162] The second, the U.S. Eximbank, provides support for the sale of domestic goods to foreign purchasers by providing purchase guarantees and political risk insurance.[163] The U.S. Eximbank provides insurance that covers inconvertibility, transfer, and expropriation risks on similar terms to OPIC, but the Eximbank can cover foreign lenders ineligible for

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[156] Fitzgerald, *supra* note 37, at 13. *But see Capital Market Push Key to Asian Project Finance Needs*, POWER ASIA, Nov. 13, 1995, at 1 (discussing new World Bank policy that will de-emphasize IFC lending to developers in favor of development lending at national levels).

[157] CARTER & TRIMBLE, *supra* note 40, at 531.

[158] Fitzgerald, *supra* note 37, at 13.

[159] *WB Power Lending Up but "Catalyst" Role Sought*, POWER ASIA, Oct. 16, 1995, at 5; *see also IFC Backs APP IPP*, POWER ASIA, June 27, 1994, at 13 (discussing IFC approval of $118 million loan for 235-megawatt power project in Jegurupadu); *IFC Backs Hopewell BOT*, POWER ASIA, Feb. 1, 1993, at 16 ($110 million loan for 700-megawatt project in Quezon).

[160] STEPHAN ET AL., *supra* note 40, at 252. Examples of such government institutions include the German Finance Company for Investments in Developing Countries ("DEG"), the Overseas Economic Cooperation Fund of Japan ("OECF"), and the Nordic Environment Finance Corporation ("NEFCO"). *See* Thomas M. Kerr, *Supplying Water Infrastructure to Developing Countries in Private Sector Financing*, 8 GEO. INT'L ENVTL. L. REV. 91, 108 n.26 (1995).

[161] STEPHAN ET AL., *supra* note 40, at 252.

[162] Fitzgerald, *supra* note 37, at 13-15.

[163] STEPHAN ET AL., *supra* note 40, at 252.

OPIC programs.[164]

D. The Relationship Between Risk and Financing

Financing of private power projects is difficult to obtain unless risk is properly mitigated and allocated among the parties.[165] For example, if completion risk is not properly allocated to and mitigated by the developer, lenders will be less likely to extend credit for fear of project failure.[166] Similarly, if the host government fails to mitigate currency risk and such risk is not shifted to political risk insurers, lenders will be unlikely to extend credit for fear that the developer will be unable to service its debt.[167]

When determining project feasibility, developers most often appeal first to commercial lenders to obtain financing.[168] If the lender cannot obtain adequate security and mitigate its exposure to project risks, financing will be refused.[169] When commercial lending is unavailable, the developer may seek to obtain financing through the securities markets, which divide project risks among a larger number of investors.[170] Access to these markets, however, requires the developer to consider the relative cost of different types of offerings, as well as the risk tolerance of different classes of investors.[171] In the United States, private placements of debt or equity followed by resale under Rule 144A may offer the best alternative for developers. Such transactions avoid the registration costs associated with Section five of the Securities Act of 1933 and require placement of securities with sophis-

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[164] Fitzgerald, *supra* note 37, at 13-14. For discussion of U.S. Eximbank funding of private power projects in developing countries, see *$50m Exim Loan for U.S. Power Equipment Sales*, POWER ASIA, Feb. 19, 1996, at 15 (discussing financing of 125-megawatt facility in Farouqabad, Pakistan); *Financing Cleared for Mission*, *supra* note 10, at 1 (discussing financing of Mission's 1200 megawatt Paiton facility in Indonesia).

[165] *See supra* note 14 and accompanying text.

[166] *See* Beardsworth, *supra* note 5, at 27 (asserting that asset-back lenders seek risk assurances to secure acceptable risk/return ratio).

[167] *See* Fitzgerald, *supra* note 37, at 10.

[168] *See supra* notes 138-39 and accompanying text.

[169] *Cf.* STEPHAN ET AL., *supra* note 40, at 266 (positing that guaranteeing adequate security is threshold issue in obtaining commercial financing of development project).

[170] *See id.* at 287. *But see* Smith, *supra* note 4, at 199 (asserting that insufficient number of publicly financed privatization projects has occurred for public securities to constitute viable, long-term source of funds).

[171] *See supra* notes 142-49 and accompanying text.

ticated institutional investors that are better able to bear risk.[172] Public offerings, in contrast, are less appealing to developers because they generate high registration costs and because investors are less willing to assume risk at rates of return acceptable to the developer.[173]

IV. WAYS FOR DEVELOPING COUNTRIES TO ATTRACT FOREIGN INVESTMENT IN PRIVATE POWER PROJECTS

Developing nations can attract foreign investment and reduce the cost of financing private power projects by stabilizing their economic, political, and legal environments.[174] First, a developing nation must stabilize exchange rates and inflation.[175] While there has been significant criticism of the International Monetary Fund and World Bank structural adjustment programs designed to achieve this end,[176] it cannot be denied that stable exchange rates and measures designed to control inflation facilitate access to financing for infrastructure development projects in developing countries.[177] Second, a developing nation can

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[172] *See supra* notes 142-47 and accompanying text.

[173] *See* STEPHAN ET AL., *supra* note 40, at 288; Smith, *supra* note 4, at 200.

[174] Harder, supra note 1, at 39; Smith, *supra* note 4, at 199.

[175] *Id.*

[176] *See* Bartram S. Brown, *Developing Countries in the International Trade Order*, 14 N. ILL. U. L. REV. 347, 371 (1994).

> The term structural adjustment refers to the process by which economic factors such as land, labor and capital are reallocated within a country as it adapts in order to function more efficiently as part of the global economy. Structural adjustment is required by the liberalization of international trade as each country moves to specialize in the production of those goods which it can produce most efficiently, and abandons the production of those goods which it cannot produce as efficiently. Because the process usually entails unemployment, the closing of inefficient industries, and other such dislocations in the short run, this adjustment tends to be politically sensitive in all countries.

Id.; *see, e.g.*, Caroline S. West, *Effects of the New World Order on the Third World*, 87 AM. SOC'Y INT'L L. PROC. 37, 50 (1993) (arguing that while structural adjustment programs in Africa stemmed inflation and brought currencies more in line with market values, such programs failed to encourage economic diversification); Shelley Wright, *Women and the Global Economic Order: A Feminist Perspective*, 10 AM. J. INT'L L. & POL'Y 861, 881 (1995) (arguing that structural adjustment programs cause currency devaluation and inflation which have particularly severe impact on women).

[177] *See* Smith, *supra* note 4, at 195 (asserting that stability of host nation's macroeconomic environment is requisite to success of privatization projects); MICHAEL P. TODARO, ECONOMIC DEVELOPMENT IN THE THIRD WORLD 420 (4th ed. 1989) (positing that private lenders construe economic stabilization measures as

ensure a climate conducive to foreign investment by developing a political consensus in support of infrastructure privatization.[178] Political consensus will reduce the political risks perceived by foreign developers and lenders.[179] Third, host nations should focus on the development of legal systems that are predictable and fair.[180] Legal reform should focus on issues that affect the promotion of foreign investment, such as the effectiveness of debtor-creditor laws regarding the protection of the priority of security interests.[181] Legal reform should also focus on streamlining dispute resolution procedures, either through legislative reform or through a willingness to submit to binding arbitration under project contracts.[182] Finally, host nations should institute regulatory reform that encourages the submission of competitive bids from foreign power developers.[183] By instituting an efficient and predictable regulatory framework, host nations will encourage bid submission by reducing the costs to bidders.[184] Moreover, by accepting bids in a competitive environment, host nations can reduce their liability for project costs by enhancing their bargaining positions.[185]

V. THE SOCIAL IMPACT OF RISK REDUCTION

Host nations must also consider the social impact of adopt-

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providing greater assurance of host nation's ability to repay debt).

[178] Smith, *supra* note 4, at 195.

[179] *Id.*

[180] *Id.*; *see also* Harder, *supra* note 1, at 39 (discussing importance of private investor's confidence in host country's legal and economic systems).

[181] *See* Fitzgerald, *supra* note 37, at 21 (discussing laws governing debtor-creditor relationships and security interests in developing countries); Smith, *supra* note 4, at 196 (detailing fundamental elements necessary for legal reform).

[182] *See* Beardsworth, *supra* note 5, at 35 (suggesting that developers and power utilities form "operating committees" as front-line dispute resolution mechanism to be used before submission of disputes to binding arbitration); Smith, *supra* note 4, at 196; *see also* Riedy, *supra* note 18, at 330 (describing legal system of India as relatively conducive to foreign investment given its similarities to British and American systems).

[183] *See* Smith, *supra* note 4, at 197 (stating that absence of regulations can prolong project negotiation).

[184] *See id.* (stating that bid submission regulatory scheme should be open and transparent).

[185] *See* Harder, *supra* note 1, at 40 (questioning whether unsolicited bids by private power developers will achieve optimal technical and financial proposals absent competing bids); Smith, *supra* note 4, at 216 ("It is preferable to select developers of private power projects based on competitive solicitations, since these are more likely to lead to least-cost [power] supply.").

ing mechanisms designed to attract foreign investment.[186] Economic, political, and legal stabilization can require subordinating the rights of the host nation's citizens to those of the foreign developers. For example, the stabilization of exchange rates and inflation is often achieved by reducing wage increases and public spending.[187] The host nation, therefore, may be forced to decrease government spending which supports programs designed to help its citizens, including education, health care, social assistance, and poverty relief.[188]

In addition, economic modernization often comes at the expense of political pluralism and citizen participation.[189] Forging a political consensus, therefore, can lead to human rights abuses.[190] In developing nations, consensus is often the view of the political elite, rather than the result of a democratic process.[191] Developing nations often promote economic growth and industrial development while ignoring human needs.[192] In addition, true political consensus is difficult to obtain because the power project often sparks the controversy.[193] In some cases,

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[186] Brian B.A. McAllister, Note, *The United Nations Conference on Environment and Development: An Opportunity to Forge a New Unity in the Work of the World Bank Among Human Rights, the Environment, and Sustainable Development*, 16 HASTINGS INT'L & COMP. L. REV. 689, 693 (1993) (citing Global Consultation on the Right to Development as a Human Right's conclusion that development strategies which evaluate only financial considerations have resulted in infringement of human rights and led to breakdown of families and communities). Multilateral organizations often fail to consider such costs. The World Bank's charter, for example, specifically states that all non-economic factors are to be disregarded during loan negotiations. *Id.* at 706.

[187] Wright, *supra* note 176, at 881-82. Ironically, stabilization of foreign exchange rates is often achieved by devaluating the local currency, a mechanism which often creates inflation. Devaluation further necessitates inflation fighting measures, such as decreased government spending and wage control. *See* TODARO, *supra* note 177, at 420.

[188] *Id.*; *see also* West, *supra* note 176, at 50 (discussing outcome of measures designed to stabilize inflation and foreign exchange).

[189] Robert Weissman, *"Development" and the Denial of Human Rights in Ramos' Philippines*, 7 HARV. HUM. RTS. J. 251, 252 (1994).

[190] *Id.* at 268 n.4 (positing that state democracy and human rights are often in competition with goals of economic development).

[191] *Id.* Some commentators, however, believe that, at least in the early stages of modernization, lack of participation is better than "too much democracy too soon" because the latter affords narrow interest groups the opportunity to control the development agenda. *Id.*

[192] *See* McAllister, *supra* note 186, at 699.

[193] *Id.* at 699. The failure of the host government to assess properly the social costs inherent in facilitating privatization project financing can lead to disastrous results. Construction of the Volta Hydroelectric Dam in Ghana, for example, re-

"consensus" is reached through military repression and human rights violations.[194] Political consensus attained through military repression may thus lead to the political instability that foreign investors fear.

Legal reform can also create dilemmas for the host nation. Non-market oriented economies of less developed nations often have trouble interjecting concepts of business law created in market oriented economies.[195] Business laws of developed nations rely upon a stable and honest bureaucracy to balance fairly public and private interests.[196] Such institutions do not necessarily exist in less developed nations, with bureaucrats free to exercise control over public and private assets for political and personal gain.[197]

The host nation must also be aware of the social impact of promoting competitive bidding. True competitive bidding requires the elimination of subsidies to state-run utilities in order to make non-subsidized private power bids competitive.[198] Terminating subsidization of utility service leads to opposition from subsidized consumers and may further jeopardize political stability.[199]

CONCLUSION

The success of private power projects in developing countries depends on the ability of both the host nation and the developer to mitigate and allocate risk appropriately. Generally, commercial risk should be borne by the developer because the developer is in the best position to control construction and operation of a private power project. The host nation can reduce its exposure to the portion of commercial risk that it assumed by instituting an effective regulatory system for the submission of competitive project bids. The host nation should bear the greatest degree of political risk because it is in the best position to do so. Developers can mitigate political risk only by initiating projects in countries where such risk is relatively low and by shifting the risk to

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sulted in the involuntary resettlement of 78,000 people, most of whom ended up in shantytown poverty. *Id.* at 691-92.

[194] *See id.*

[195] Webb, *supra* note 82, at 55.

[196] *Id.* at 56.

[197] *Id.*

[198] Smith, *supra* note 4, at 195.

[199] *Id.*

political risk insurers.

Before implementing mechanisms designed to facilitate infrastructure investment, the host nation must carefully consider the socio-economic costs of these measures. The promotion of economic growth through foreign investment often requires the host nation to subordinate the rights of its own citizens. Development strategies which fail to recognize the social impact of regulations enacted to promote foreign investment may result in the infringement of human rights and promote civil unrest. The host nation must therefore consider whether it can succeed in attracting foreign investment without imposing social costs which outweigh the benefits of such investments.

Poor risk allocation will certainly increase financing costs and possibly prevent access to financing altogether. The significance of this result is implicit in what is at stake. Developing countries are pursuing modernization and industrialization with increasing vigor. Yet, these countries lack the infrastructure to accommodate modernization. Moreover, they lack the public funding to finance infrastructure development. The resulting need for infrastructure development generally, and for energy infrastructure development in particular, has lead developing countries to seek private sources of capital. Privatization projects should be viewed as more than simply a solution to short-term budgetary constraints. The success of private infrastructure development depends on proper risk allocation, including the social risks that arise when a nation privatizes enterprises that deliver services regarded as necessary for the survival of the host nation's citizens.